EXPLORATION OF BARRIERS TO BREAST-SELF EXAMINATION AND AWARENESS. A REVIEW

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Abstract

Background: Early detection of breast cancer is of great importance to improve women's health and to decrease the cost related to cancer death. Therefore, recognition of variables related to breast cancer screening behaviors is necessary.

Objectives of this study were to explore the barriers to breast self-examination (BSE) performance, and to characterize the demographic and cognitive factors associated with their breast cancer screening behavior.

Method: Data were 12 articles talking about the barriers to BSE, using an adapted version of Champion's revised Health Belief Model Scale.

Results: The results revealed that most women in different countries have multiple factors preventing her to perform breast cancer examination and other screening methods, such as cultural, socio-demographic, socio-economic, behavioral and educational factors.

Conclusion: Eliminating barriers and increasing perceived self-efficacy with an emphasis to make the women acquainted with BSE performance; as well as increasing health motivation of women and persuading physicians on the importance of clinical breast examination (CBE) performance with low cost, are important to promote BSE.

Keywords: Breast cancer, BSE, barriers, awareness.

Introduction

Breast cancer is a common type of cancer among females in the world, which is varied markedly between countries, with the highest incidence of breast cancer in the United States of America and North America and with the lowest incidence in Asia, but in Asian countries which have moved towards a western type of life style and behaviours it has been increased.

Breast cancer causes 376.000 deaths a year worldwide, with about 900.000 women diagnosed every year with the disease, dietary and genetic factors or both may be implicated. Early diagnosis shows good result in the treatment and can prevent metastasis and achieve better outcome of management.

Breast self examination (BSE) is the main trained method to screen breast cancer and for early detection of the disease. Physical examination of the breast is done by a doctor or any qualified person. It is an important method to assess presence of breast tumors at early stage. Breast self examination is the cheapest and easiest method for the wider population to screen for breast cancer.(BSE is the best method for females at age 20 years old and above to detect breast cancer in early stages.

The most effective way of health promotion and decreasing mortality and morbidity in patients with breast cancer is early diagnosis of breast cancer. The disease can be diagnosed earlier with mammography, breast self examination (BSE) and clinical breast examination (CBE).

Method:

To explore the knowledge related to exploration of barriers to breast self examination and awareness, an integrative literature review was conducted using the electronic databases of Hashemite University Science Direct and Pubmed for articles published between (2000-2012).

The key words used were Breast-Self examination, barriers, awareness, to find a lot of research in online databases; 12 research items from H.U and 11 from Pubmed databases. The criteria which was used in integrative literature review is:

1- It included a patient population of females with breast cancer and early detection.

2- It explored the barriers to (BSE) and awareness.

3- It is written in the English language.

According to above criteria 12 articles which were selected for this review were published from 2000 to 2012. The 12 studies composing this integrative research review were quantitative studies. Eight studies were descriptive, and four studies were cross sectional.

Sample Characteristics

The sample sizes in the 12 studies in this review ranged from 46 to 714 women aged between 20 and 70 years.

Result:

Inferior health care, barriers to health care access, health beliefs, personal behaviors, and later stage of disease at diagnosis are some of the reasons attributed to this disparity (Porterfield& Registe,2012). Many studies have assessed environmental, cognitive, and emotional facilitators and barriers to screening. Health beliefs and perceptions reportedly act as principal barriers to attending screenings. In recent years,

awareness has risen of cultural barriers to screening in specific ethnic groups, especially in traditional societies. A prominent barrier that has been identified in traditional societies is cancer fatalism, defined as the belief that death is inevitable when cancer is diagnosed. Other studies have focused on low socioeconomic status or living in low-income countries; 20 as major barriers to screening (Awad, Azaiza, Cohen & Daoud, 2010).

Cognitive factors play an important role in health behaviors especially in breast cancer screening behaviors. Health Belief Model (HBM) is one of the cognitive models for understanding the general health behavior patterns. Champion modified it to examine the beliefs related to BSE and mammography. This model suggests that changes in preventive health behaviors are originally based on four factors: (a) susceptibility: perceived personal vulnerability to or subjective risk of a health condition, (b) seriousness: perceived personal harm of the condition, (c) benefits: perceived positive attributes of an action, and (d) barriers: perceived negative aspects of an action. Two other concepts, health motivation and self-efficacy, were later added to the original HBM. Health motivation refers to the beliefs and behaviors related to the state of general concern about health. (Noroozi & Tahmasebi, 2011).

In low-income countries, the lack of facilities, lack of information, and environmental barriers (such as difficulties reaching the clinic and costs) cannot be distinguished from the cultural barriers of traditional societies. These factors have not yet been assessed among Palestinian women residing in the West Bank where, in addition to the difficulties described above, there also are barriers of accessibility to healthcare facilities because of the complex situation of political conflict. (Awad, Azaiza, Cohen & Daoud, 2010).

In Iran, a descriptive study was conducted, where 403 women were recruited using a convenience sampling method from the working and public places of Bushehr city in Iran. Permission to use this research was obtained from the Bushehr University of Medical Science and the provincial health director of Bushehr city. The aim of the study was verbally explained to the potential participants. They were then asked if they agreed to participate in the investigation. The participants were told that they could withdraw from the study at any time and that all information would be kept secret and anonymous. They were also requested to choose the answer that best described their beliefs and opinions. The inclusion criteria were older than 18 years, not pregnant or breast-feeding, lacking mental and/or physical disabilities, and having the ability to read and write. From the total of 403 women, 15 participants submitted imperfect data questionnaire related to BSE. Also among women aged 40 and older (N= 118), 6 participants had imperfect data questionnaires related to mammography use. These participants were not included in the related data analysis. A self-administered questionnaire and the Champion's Health Belief Model Scale (CHBMS) were used as the data collection instruments. The self-administered questionnaire included the socio-demographic variables of the participants, and Cancer related questions. The socio-demographic variables included age, current marital status, years of education, employment status, contraception method used, gravidity, menopausal status and health insurance coverage. Cancer related questions were included: having CBE (yes, no), having a family history of breast cancer (yes, no), having ever heard/read about breast cancer, BSE and mammography (yes, no), and finally sources of breast cancer information. The self-administered questionnaire was developed by the authors based on an extensive review of the literature. Six subscales of CHBMS were used for evaluating the participants' breast cancer beliefs. They included

perceived susceptibility (5 items), perceived seriousness (7 items), perceived benefits (6 items for BSE and 6 items for mammography), perceived barriers (6 items for BSE and 5 items for mammography), perceived self-efficacy (11 items), and health motivation (7 items). All items in the six subscales were scored using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Higher ranking on the Likert scale indicates greater agreement with the health beliefs that were assessed. All of the subscales were positively related to the screening behavior, except for the barriers, which were negatively associated. The screening behaviors were measured by self reported response of the participants to regular BSE performance and mammography use. The participants older than 40 years were evaluated for mammograph. Overall, 388 Iranian women aged 20 to 66 years old with mean age of 34.32 were recruited in this study. The majority of the women (69.1%) were in the age range of 18 and 39 years. Most of the participants were married (75%). 19.1% of the respondents have been educated in the primary/secondary level of education, 41.5% were graduated from high school and 39.4% had obtained college degree. The majority of the women (53.4%) were not working and 281 participants (72.4%) perceived their income level as adequate. Three hundred and fifty women (90.2%) had health insurance. Among the 275 married women, most of the participants (50.6%) used modern contraception methods such as oral contraception pills, IUD and injection methods; 11.6% had withdrawal contraception and 37.8% did not use any contraception methods and 37.4% of the women did not have any pregnancy. A family history of breast cancer was reported by 12.9% of the participants. The majority of the participants (65.5%) reported that they had heard/read about breast cancer. Radio and TV programs and printed materials were presented as main sources of information about breast cancer by 37.4% and 23.6% of the participants, respectively. Most of the participants

(53.6%) had heard/read about BSE. One hundred and forty-four women (37.1%) reported that they had performed BSE at least once in the last 6 months, and only 29 women (7.5%) stated that they performed BSE on a regular monthly basis. Forty women (10.3%) stated that they had CBE at least once in their lifetime and only 23 women (5.9%) reported that they had annual CBE. BSE performance was significantly related to attending school for college degree, being married, using of modern contraception methods, having heard/read about breast cancer and BSE, and obtaining information from radio and TV programs. No significant associations were identified between performing BSE and other variables. (Noroozi & Tahmasebi, 2011).

Turkish women's experiences with breast self examination, clinical breast examination and mammography screening, as well as perceived barriers and facilitators in the theoretical framework of the Health Belief Model and the Health Promotion Model were examined. This was a qualitative study performed on 46 elderly women aged 60-75 years. Data were collected with focus group interviews and analyzed systematically with qualitative analysis techniques to determine themes concerning knowledge and facilitators of and perceived barriers to early detection of breast cancer among elderly women. Barriers to screening were insufficient knowledge, fear, neglect/postponement, embarrassment/religious beliefs, inability to make an appointment, lack of a physician's recommendation and health professionals' attitudes. Facilitating factors were being informed about screening, fear, awareness of cancer screening, familial history of breast cancer and social support, making an appointment, health professionals' communication and physicians' recommendations. Public health nurses and health professionals from other health disciplines should be aware of elderly women's need for knowledge about screening, understand elderly women's fears and worries about

their health and know barriers to and facilitators of screening.

Personal Factors. The theme personal factors was categorized into sources of knowledge concerning elderly women's knowledge and awareness of breast cancer screening, symptoms and signs, etiology, risk factors, knowledge of diagnosis and treatment, times of screening, fear (possibility of having a tumor, diagnosis of cancer, removal of breast(s) and harmful effects of mammography), neglect (lack of physical signs, feeling well, discomfort due to mammography, lack of familial history of cancer), cultural factors (embarrassment and religious beliefs) and priorities (not having health problems and not having free time).

Cultural Factors. The women frequently mentioned cultural factors as barriers to breast screening. Several women noted that the female body and the breasts are taboo subjects in Turkish culture and according to religious beliefs in the society therefore women feel embarrassed to have breast screening. Several women suggested that female doctors encourage women to have breast screening. However, several women noted that they did not mind whether physicians were male or female. In addition, several elderly women believed that having breast cancer was decided by God. (Beşer& Kissal, 2011).

In the same country a descriptive and cross sectional study was conducted in three public education centres of Bornova, Izmir, over a period of eight months. The research sample was 382 Turkish women who were 40 years and over, not previously diagnosed with breast cancer. Descriptive information form was developed by the researchers. It was about women's sociodemographic characteristics (age, marital status, family type, education status, health insurance, long lived regions, economic status, learned BSE), breast cancer

screening behaviors (regular frequency of doing BSE practice, frequency of having mammography and doctor control).

The Champion's Health Belief Model Scale (CHBMS).The mean age of respondents was 51.3, range (40–72) years. Most of them were married (n= 312) and Muslim. Nearly all of them had degrees, while 8.9% had no medical insurance. A total of 42.7% of women were primary school graduates, 75.1% of them had information about breast cancer. They heard information about breast cancer 48.1% in TV/ radio, 43.2% by doctors and nurses. According to the women's responses 40.6% of them had no knowledge about breast self examination, 66% had never had a mammography and 74.3% had never had CBE. Practicing BSE of women was irregular (40.6%. Only 27.3% of them had done BSE once a month.

General Measures for Breast Awareness Women performed 40.6 % of their BSE. The effective socio-demographic characteristics of breast cancer health beliefs of women should be considered in the design of breast health promotion and screening programs because they are likely to have a bearing on Turkish women's attitudes regarding the value they perceive in cancer screening.(Cam, Gumus& Malak, 2010).

In Palestine a study was conducted to assess screening behaviors in relation to cultural and environmental barriers among Palestinian women in the West Bank. The participants were 397 women, aged 30 to 65 years, residing in the Palestinian Authority, and a stratified sample method was used (98.3% participation rate). The participants completed questionnaires on breast examination behaviors and knowledge, on perceived cancer fatalism and health beliefs, and on environmental barriers scales. Greater than 70% of the women had never undergone mammography or clinical breast examination (CBE), whereas 62% performed self breast

examination (SBE). Women were more likely to perform SBE if they were more educated, resided in cities, were Christian, were less religious, had a first degree relative with breast cancer, perceived higher effectiveness and benefits of SBE, and perceived lower barriers and fatalism. Participants reported a combination of personal, cultural, and environmental barriers, which should be addressed by educational programs and followed by the allocation of resources for early detection and treatment of breast cancer. (Awad, Azaiza, Cohen& Daoud, 2010).

In Malaysia a cross-sectional study was conducted with 222 Malaysian women using a self-administered questionnaire. The mean (SD) age was 28.5 (±9.2) years; 59.0% were university graduates. Of the total, 81.1% were aware of breast cancer and 55% practiced BSE. Amongst 45% of respondents who did not practice BSE, 79.8% did not know how to do it, 60.6% feared being diagnosed with breast cancer, 59.6% were worried about detecting breast cancer, 22% reported that they should not touch their bodies, 44% and 28% reported BSE is embarrassing or unpleasant, 29% time consuming, 22% thought they would never have breast cancer or it is ineffective and finally 20% perceived BSE as unimportant. Logistic regression modeling showed that respondents aged ≥45 years, being Malay, married and having a high education level were more likely to practice BSE (p<0.05). In this study sample, a significant proportion of respondents was aware of breast cancer but did not practice BSE. Knowledge, psychological, cultural, perception and environmental factors were identified as barriers. BSE practice was associated significantly with socio-demographic factors and socioeconomic status. (Al-Dubai, Alabsi, Ijaz, Ganasegeran& Manaf, 2006).

In the same country a study was undertaken to determine the practices and barriers towards

breast self-examination among young Malaysian women. A cross-sectional study was conducted among 251 female students at the Management and Science University, Shah Alam, Selangor, Malaysia. Questionnaires were distributed at gathering places such as the university cafeteria, the university plaza, the Islamic center, and at the library. In addition, questionnaires were distributed in the lecture halls. The proposal of this study was approved by the Ethics and Research Committee of Management and Science University. A total number of 251 students participated in this study. The majority of them were older than 20 years, of Malay racial origin, single and from urban areas (66.5%; 63.7%; 96%; 70.9% respectively). Regarding their lifestyle practices, the majority of participants do exercise, are non-smokers and do not drink alcohol (71.3%; 98.4%; 94.4% respectively). More than half of the study participants mentioned that they have practiced BSE (55.4%). Regarding the sources of information about BSE, the majority mentioned that radio and TV were their main sources of information (38.2%). Age, exercise and family history of cancer significantly influenced the practice of BSE (p = 0.045; p=0.002; p=0.017 respectively). Regarding the barriers to BSE, the majority who never practiced BSE mentioned that lack of knowledge, not having any symptoms, and being afraid of being diagnosed with breast cancer were the main barriers to practicing BSE (20.3%; 14.3%; 4.4% respectively).

Conclusion

More than half of the participants practiced BSE. Age, exercise and family history of cancer significantly influenced the practice of BSE. Lack of knowledge, not having any symptoms and being afraid of being diagnosed with breast cancer were the main barriers to practicing BSE. There is an urgent need to develop a continuous awareness campaign among university students on the importance of performing BSE. (Assabri, Bobryshev, CheN, Naggar. D, Naggar.R, 2011).

The majority of studies shows that there are many barriers that prevent women from doing breast self examination and other breast cancer screening methods and these barriers briefly are cultural, socio-demographic, socio-economic, behavioral and educational factors.

Recommendation

Periodic follow up of the same study participants can identify the effect of time on the retention of the adopted knowledge.

A breast self examination training program should be adopted as an element of the services offered to the females in Jordan.

Establishment of specialized resource centers in different governorates of Jordan in rural or urban areas to promote breast cancer and breast self examination to all females.

All channels of the national mass media could efficiently be utilized to cultivate or disseminate a healthy knowledge about breast self examination by presenting specific programs associated with breast self examination and women's health.

There is need to further address the importance of breast self-examination among this category of student, since they are future nurses and they play a vital role in disseminating information to the populace, especially the female gender.

References

Gumus, A. B. Cam, O. Malak, A.T. (2010). Socio-demographic Factors and the Practice of Breast Self Examination and Mammography by Turkish Women. Asian Pacific Journal of Cancer Prevention, Vol 11, 57-60.

Kissal, A. Beşer, A. (2011). Knowledge, Facilitators and Perceived Barriers for Early Detection of Breast Cancer among Elderly Turkish Women. Asian Pacific Journal of Cancer Prevention, Vol 12, 975-984.

Noroozi, A. Tahmasebi. R. (2011). Factors Influencing Breast Cancer Screening Behavior among Iranian Women. Asian Pacific Journal of Cancer Prevention, Vol 12, 1239-1244.

Azaiza, F. Cohen, M. Awad, M. Daoud, F. (2010). Factors Associated With Low Screening for Breast Cancer in the Palestinian Authority. Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/cncr.25378.

Registe M, and Porterfield S. (2012). Health Beliefs of African American Women on Breast Self-Exam. 446 The Journal for Nurse Practitioners - JNP Volume 8, Issue 6, June 2012.